

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Previously Presented) An apparatus for processing a signal, comprising:
 - 2 a signal dispensing unit dispensing a first personal computer signal output from a personal
 - 3 computer in the form of a first analog signal directly from said personal computer;
 - 4 an analog to digital converter converting the first analog signal from said signal dispensing
 - 5 unit of said personal computer to a first digital signal of said personal computer;
 - 6 a signal processing unit performing picture-in-picture signal processing enabling one of the
 - 7 first digital personal computer signal dispensed by said signal dispensing unit through said analog
 - 8 to digital converter and a decoded second signal as a second digital signal input from an outside
 - 9 source to be displayed on a main screen and the other to be displayed on at least one sub-screen, and
 - 10 said signal processing unit processing said second digital signal to be displayed alone on said main
 - 11 screen, said second digital signal being any one of a television signal and a video signal;
 - 12 a digital to analog converter converting a digital output signal of said signal processing unit
 - 13 into a second analog signal;
 - 14 an outputting unit directly connected to said digital to analog converter and directly
 - 15 connected to said signal dispensing unit of said personal computer, receiving said first analog signal

16 from said signal dispensing unit and said second analog signal from said digital to analog converter .
17 converting said digital output signal from said signal processing unit, outputting the first analog
18 signal dispensed from said signal dispensing unit in response to a control signal for displaying only
19 the first personal computer signal, and outputting said second analog signal from said digital output
20 signal of said signal processing unit in response to a control signal for displaying the first personal
21 computer signal and said second signal in picture-in-picture format; and
22 a monitor amplifying the signal output from said outputting unit to be displayed.

1 2. (Previously Presented) The apparatus of claim 1, further comprised of the first analog
2 signal being outputted from said signal dispensing unit being included in said personal computer,
3 with said personal computer sending the first analog signal to said analog to digital converter being
4 directly connected to said signal dispensing unit of said personal computer, and said personal
5 computer sending the first analog signal to said outputting unit being directly connected to said
6 signal dispensing unit of said personal computer.

1 3. (Previously Presented) The apparatus of claim 1, with said signal processing unit,
2 comprising:

3 a decoding unit converting said second signal into a digital signal and decoding said second
4 signal;
5 a scan rate conversion unit converting a scan rate of said decoded second signal as the second
6 digital signal; and

7 a signal processing unit performing a picture-in-picture signal process on said second signal
8 whose scan rate is converted and said first digital personal computer signal, accommodating one of
9 said second digital signal and said first digital personal computer signal is displayed on said main
10 screen and the other of said second digital signal and said first digital personal computer signal is
11 displayed on the plurality of sub-screens, or for processing said second signal to be displayed alone
12 on said main screen.

1 4. (Previously Presented) The apparatus of claim 1, with said decoded second signal input
2 from an outside source, further comprising:
3 a decoding unit converting said second signal into a digital signal and decoding said second
4 signal; and
5 a scan rate conversion unit converting a scan rate of said decoded second signal.

1 5. (Previously Presented) The apparatus of claim 2, with said decoded second signal input
2 from an outside source, further comprising:
3 a decoding unit converting said second signal into a digital signal and decoding said first
4 signal; and
5 a scan rate conversion unit converting a scan rate of said decoded second signal and
6 outputting the second digital signal.

1 6. (Currently Amended) A method for processing a signal, comprising the steps of:

2 dispensing an output signal of a first analog signal directly from a personal computer;

3 sending the first analog signal to both a conversion unit and an outputting unit, with the first

4 analog signal being sent to [[said]] a switching unit without conversion;

5 converting the first analog signal to a first digital signal through said conversion unit;

6 performing picture-in-picture signal processing enabling one of a first digital signal of said

7 personal computer generated by the step of dispensing said output signal of said first analog signal

8 and a decoded second signal input from an outside source to be displayed on a main screen and the

9 other to be displayed on at least one sub-screen, and processing said second signal to be displayed

10 alone on said main screen, said second signal being any one of a television signal and a video signal;

11 outputting from said switching unit, said first analog signal directly from said personal

12 computer signal generated from the step of dispensing an output signal in response to a control signal

13 for displaying only said first analog signal from said personal computer, and outputting an output

14 signal of the step of performing picture-in-picture signal processing in response to a control signal

15 for displaying said first analog signal of said personal computer and said second signal in picture-in-

16 picture format;

17 amplifying the signal output from said switching unit; and

18 displaying said amplified signal output.

1 7. (Previously Presented) The method of claim 6, further comprising the step of converting

2 said picture-in-picture signal output from the step of performing picture-in-picture signal processing

3 into a second analog signal from a digital output signal of said signal processing unit before the

4 signal is output from the step of outputting from said switching unit.

1 8. (Previously Presented) The method of claim 6, with said decoded second signal input from
2 an outside source, further comprising:

3 converting said second signal into a second digital signal and decoding said second signal;
4 and

5 converting a scan rate of said decoded second signal.

1 9. (Previously Presented) The method of claim 7, with said decoded second signal input from
2 the outside source, further comprising:

3 converting said second signal into a second digital signal and decoding said second signal;
4 and

5 converting a scan rate of said decoded second signal.

1 10. (Previously Presented) An apparatus for processing a signal, comprising:
2 a personal computer generating an output signal accommodating a display of an image
3 generated by said personal computer;
4 a signal dispensing unit dispensing said output signal from said personal computer directly
5 to both an outputting unit and a converting unit;
6 a converting unit converting the output signal from an original first analog signal from said
7 personal computer to a first digital signal of said personal computer;

8 a signal processing unit performing picture-in-picture signal processing enabling one of said
9 output signal from said personal computer signal dispensed by said signal dispensing unit and a
10 decoded video signal input from an outside source to be displayed on a main screen and the other
11 to be displayed on at least one sub-screen, and said signal processing unit processing said video
12 signal to be displayed alone on said main screen;

13 an outputting unit outputting the original first analog signal generated from and sent directly
14 from said personal computer signal dispensed from said signal dispensing unit in response to a
15 control signal for displaying only said personal computer signal, and outputting an output signal of
16 said signal processing unit in response to a control signal for displaying said personal computer
17 signal and said video signal in picture-in-picture format; and

18 a monitor amplifying and displaying said signal output from said outputting unit.

1 11. (Previously Presented) The apparatus of claim 10, further comprising a signal conversion
2 unit converting said picture-in-picture signal output from said signal processing unit from a digital
3 signal into a second analog signal before a signal is output from said outputting unit.

1 12. (Previously Presented) The apparatus of claim 10, with said decoded video signal input
2 from the outside source, further comprising:

3 a decoding unit converting said video signal into a digital signal and decoding said video
4 signal; and

5 a scan rate conversion unit converting a scan rate of said decoded video signal.

1 13. (Previously Presented) The apparatus of claim 12, with said decoded video signal input
2 from the outside source, further comprising:
3 a decoding unit converting said video signal into a digital signal and decoding said video
4 signal; and
5 a scan rate conversion unit converting a scan rate of said decoded video signal.

1 14. (Previously Presented) The apparatus of claim 10, further comprised of said video signal
2 being selected from the group consisting of a television video signal and a non-broadcasted video
3 signal.

1 15. (Previously Presented) The apparatus of claim 10, further comprising:
2 a digital to analog converter unit converting said output signal generated from said signal
3 processing unit from a digital signal into an analog signal for said outputting unit and not converting
4 said original first analog signal from said personal computer to said outputting unit and displaying
5 on said monitor said original first analog signal without converting said original first analog signal
6 to a digital signal from said personal computer.

1 16. (Previously Presented) An apparatus for processing a signal, comprising:
2 a signal dispensing unit dispensing an original first analog signal output from a personal
3 computer to a switching unit and to a first converter unit;

4 said first converter unit converting the first analog signal from said signal dispensing unit to
5 a first digital signal;

6 a signal processing unit performing picture-in-picture signal processing enabling one of the
7 first digital signal from said first converter and a decoded second signal as a second digital signal
8 input from an outside source to be displayed on a main screen and the other to be displayed on at
9 least one sub-screen, and said signal processing unit processing said second digital signal to be
10 displayed alone on said main screen, said second digital signal being any one of a television signal
11 and a video signal;

12 a second converter converting a digital output signal of said signal processing unit into a
13 second analog signal;

14 said switching unit connected to said second converter and connected to said signal
15 dispensing unit of said personal computer, receiving said first analog signal from said signal
16 dispensing unit and said second analog signal from said second converter, said switching unit
17 outputting the first analog signal dispensed from said signal dispensing unit in response to a control
18 signal for displaying only the original first analog signal, and outputting said second analog signal
19 from said second converter unit in response to a control signal for displaying the first analog signal
20 and said second signal in picture-in-picture format; and

21 a monitor amplifying a third analog signal output from said switching unit to be displayed.

1 17. (Previously Presented) The apparatus of claim 16, further comprised of said signal
2 dispensing unit of said personal computer being directly connected to said switching unit.

1 18. (Previously Presented) The apparatus of claim 16, further comprised of:

2 said signal dispensing unit of said personal computer being directly connected to said

3 switching unit; and

4 said signal dispensing unit of said personal computer being directly connected to said first

5 converter unit.

1 19. (Previously Presented) The apparatus of claim 18, further comprised of:

2 said signal processing unit being directly connected to said second converter unit; and

3 said second converter unit being directly connected to said switching unit.

1 20. (Previously Presented) The apparatus of claim 18, further comprised of:

2 a decoding unit converting said second signal from the outside source into said second digital

3 signal and decoding said second signal; and

4 a scan rate conversion unit directly connected between said decoding unit and said signal

5 processing unit and converting a scan rate of said decoded second digital signal output directly to

6 said signal processing unit.